



GUAM ENVIRONMENTAL PROTECTION AGENCY • *AHENSIAN PRUTEKSIÓN LINA'LA' GUÁHAN*

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OCT 05 2021

IN THE MATTER OF GRANTING A)
WATER QUALITY CERTIFICATION)
TO the U.S. Environmental Protection)
Agency R-9) WQC ORDER NO. 2021-06
Draft Ugum Surface Water
Treatment Facility NPDES Permit
No. GU0020371

TO: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY - REGION 9
Attn: Elizabeth Sablad
Manager
NPDES Permits Section
75 Hawthorne Street
San Francisco, CA 94105-3901

The Guam Environmental Protection Agency (Guam EPA) has received the U.S. EPA draft National Pollutant Discharge Elimination System (NPDES) Permit No. GU0020371 for the discharge of pollutants from the Ugum Surface Water Treatment Facility (SWTF – “facility”) located in Talofofo, Guam.

EPA has met the applicable state certification requirements for NPDES Permits at 40 CFR §124.53 and state certification procedures at 40 CFR Part 121. On July 7, 2021, a pre-filing meeting request was received by the Agency at least 30 days prior to the submittal of a certification request. On August 6, 2021, Guam EPA received a corresponding Section 401 Certification Request; and EPA set the reasonable period of time for CWA certification at 60 days or October 5, 2021.

The procedure for application and issuance of a §401 Water Quality Certification (WQC) include the Agency’s review, preliminary determination, possible public noticing and public hearing, and a final decision. (22 Guam Administrative Rules and Regulations (GAR) §5106(i)) Accordingly, the Agency reviewed and exempted from public noticing the draft Ugum NPDES Permit. Furthermore, the Guam EPA Administrator makes this written determination, by means of WQC Order No. **2021-06** granting CWA Section 401 Certification of the draft Ugum facility NPDES permit.

EPA is the permitting authority for Guam NPDES permits. Following review of the public comments received during the public comment period and receipt of Guam’s certification, EPA will issue the final Ugum SWTF NPDES permit which will incorporate any appropriate conditions specified in Guam EPA’s certification.

FACILITY DESCRIPTION

The Ugum SWTF is the only drinking water treatment plant owned and operated by Guam Waterworks Authority (GWA). The facility is the major source of water supply for the Southern Public Water System, which serves the southern part of the island. The Ugum SWTF is designed to produce up to 4 million gallons of potable water per day (in the rainy season), and discharges an average of 0.02 million gallons per day (mgd) back to the river, over approximately three and one half hours. (GWA 2014)

During 2007 to 2011, GWA upgraded the facility from a conventional filtration to a microfiltration system, as part of the GWA Stipulated Order for Preliminary Relief. The facility has operated solely on microfiltration since March 28, 2011. In the facility's previous design, the plant did not discharge wastewater.

The facility includes an intake structure in the river, a pumping station next to the riverbank at the intake structure, transmission lines, and a treatment plant. Raw water is pumped from Ugum River to a wetwell via pre-screens. The screens are back-flushed periodically to remove solids accumulated on the screen and discharged into the Ugum River.

After screening, the raw water flows into flocculation tanks and then fed into contact tanks. Supernatant from the contact tanks is sent to membrane filters for fine solids removal. Permeate is disinfected with chlorine prior to entering the distribution systems. (Note: Chlorine is used in both the membrane system for clean-in-place /maintenance wash and the disinfection system before water enters the distribution system. During the dry season, pre-chlorination at the headworks also can occur.)

The membrane filters require regular cleaning (i.e. membrane backwash cycle). The dirty backwash water is transferred to a recycle tank and clarifier to stabilize pH and neutralize the chlorine prior to discharging. The design capacity of the tank is 25,000 gallons (0.025 mgd). The facility may discharge multiple times a day if the filters are cleaned more than once per day, which occurs only after a high rainfall event after a prolonged dry period.

Solids are collected from the contact tanks and backwash water clarifiers. Solids are then sent to the sludge tank and are pumped into the sludge handling system. When the sludge handling system is not in operation, dewatered solids are hauled to Inarajan Wastewater Treatment Plant in Inarajan, Guam.

DESCRIPTION OF RECEIVING WATER

Guam EPA adopted water quality standards (WQS) for different surface waterbodies, depending on the level of protection required. Guam WQS, revised in 2015 (adjudicated in 2017) provides three categories of surface waters: S-1 (High), S-2 Medium, and S-3 Low. The Ugum River surface water is categorized as S-2 waters used for recreational purposes, including whole body contact recreation, for use as potable water supply after adequate treatment is provided, and for the propagation and preservation of aquatic wildlife and aesthetic enjoyment.

The facility discharges to the Ugum River at latitude 13° 19' 74" N and 144° 44' 57" E through outfall 001, before the convergence with the Talofofu River, which flows into Talofofu Bay. The Ugum Watershed is approximately 7.33 square miles of hills with steep slopes. Per the permit application, the critical low flow of the River is 2.00 cfs (cubic feet/second) and has a total hardness of 58mg/L of CaCO₃. The Ugum River is impaired due to turbidity, however, in 2007, EPA approved a "total maximum daily load" (TMDL) for sediment. The TMDL describes the turbidity of the River which averages 12 NTU for the year, 21 NTU during the wet season. Ugum River turbidity is about twice as high during the wet season than during the dry season.

DESCRIPTION OF DISCHARGE

The discharge consists of clean-in-place washwater or maintenance washwater used to clean the filters. A maintenance wash occurs every 3 days and clean-in-place occurs every 2 weeks during normal operations. The frequency of the maintenance wash is designed to be a short version of the clean-in-place cycle. The water cleaning the filters contain sodium hypochlorite, citric acid, and sulfuric acid. The neutralization tanks use sodium hydroxide and sodium bisulfate to balance the pH and sodium meta-bisulphate to neutralize chlorine prior to discharge. The neutralized chlorine and acid wastes generated by the chemical cleaning process is discharged into the Ugum River downstream of the intake structure. Characteristics of backwash residuals include precipitated solids, total organic carbon, total suspended solids, pH, and chlorine, when used.

Discharge is "batch" analyzed. If the washwater does not meet effluent limits and can't be discharged, the washwater is pumped out by pumper trucks and transported by tanker truck to Inarajan Wastewater Treatment Plant.

AUTHORITIES

The Guam EPA Administrator is the designated issuing authority for §401 Water Quality Certifications. (22 GAR §5106).

Applicable provisions of CWA sections 208(e), 301, 302, 303, 306, and 307 pursuant to 33 U.S.C. 1341(d); 40 CFR 124.53(e)(1).

Appropriate requirements of Territorial law including Guam Water Quality Standards (GWQS) contained in 22 GAR Chapter 5, authorized by 33 U.S.C. § 1313, 10 GCA §45106, and 10 GCA §47108; 10 GCA Chapter 47, Water Pollution Control Act, and Title 22 GAR Chapter 10, Guam Soil Erosion and Sediment Control Regulations.

WATER QUALITY CERTIFICATION CONDITIONS

Through issuance of **WQC Order No. 2021-06** (Order), Guam EPA certifies it has reasonable assurance the activity under NPDES Permit No. GU0020371 as proposed and conditioned will be conducted in a manner that will not violate applicable water quality standards and other appropriate requirements of territorial law. Water quality certification is granted to the U.S. EPA, the entity

seeking certification and the Guam Waterworks Authority, the applicant for the NPDES permit, subject to the conditions within this Order.

This Order does not constitute authorization of the permitted activities by any other local or federal agency or private person or entity. This Order does not excuse the permit holder from the obligation to obtain any other necessary approvals, authorizations or permits. This Order is not intended to waive or fulfill the requirement for certification with respect to any other federal license or permit required for any facility/activity covered by NPDES Permit No. GU0020371.

The Guam EPA Administrator (Administrator) may, on the Administrator's own motion, or the application of any person, modify, suspend, or revoke the Order, if the Administrator determines that:

1. There is a violation of any condition of the Order;
2. The Order was obtained by misrepresentation, or failure to disclose fully all relevant facts;
3. There is an unreasonable or significant change in the scope of the proposed point source discharge of pollutants from the Ugum SWTF. (22 GAR §5106 (l))

In accordance with 40 CFR 124.53(e)(3), Guam EPA has determined that no condition of the Ugum SWTF NPDES Permit may be made less stringent without violating requirements in Guam territorial law, including water quality standards.

A. GENERAL CONDITIONS

- A1. For purposes of this Order, the term "Project Proponent" shall mean the U.S. Environmental Protection Agency, the entity seeking certification, and its agents, assignees, and contractors.
- A2. For purposes of this Order, the term "Project Proponent" shall also mean GWA, as the applicant for the NPDES permit.
- A3. U.S. EPA shall enforce the effluent limits, monitoring requirements, and other conditions set forth in the Ugum SWTF NPDES permit and ensure that GWA complies with the conditions of the permit at all times. (40 CFR §121.11(c))
- A4. All submittals required by this Order shall be sent to the Guam Environmental Protection Agency Attn: 401 Federal Permit Manager, Non-Point Source Program, EMAS Division, 3304 Mariner Avenue, Bldg. 17-3304, Barrigada, Guam 96913, AND via email to jesse.cruz@epa.guam.gov. The submittals shall be identified with **WQC Order #2021-06** for NPDES Permit No. 0020371, and include the certifying representative's name, title, mailing address and phone number. (§5106(j)(4) 2017 GWQS)
- A5. As conditioned in the Ugum SWTF NPDES Permit, GWA shall submit the following monitoring documents to Guam EPA quarterly, consistent with provision A4 above.
 - An electronic or paper Discharge Monitoring Report (DMR);

- Receiving water monitoring results (*Table 3: Upstream and Downstream (UR-1 and UR-2) Water Monitoring Requirements*); and
- Receiving water monitoring results at UR-1 and UR-2 for narrative water quality standards described in Part I.4. §5106(j)(4) 2017 GWQS

- A6. GWA shall provide the coordinates of the upstream and downstream receiving water monitoring stations (UR-1 and UR-2) to Guam EPA consistent with provision A4.
- A7. U.S. EPA R-9 shall submit to Guam EPA a signed **Statement of Understanding of Water Quality Certification Conditions**. (see Attachment A for an example) per condition A4. §5106(j)(4) 2017 GWQS

B. WATER QUALITY CONDITIONS

- B1. Point source discharge(s) to waterbodies under the jurisdiction of Guam EPA must be consistent with the antidegradation policy in 22 GAR §5101(b).

C. EMERGENCY/CONTINGENCY MEASURES:

40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302

- C1. GWA shall develop and implement a Spill Prevention and Containment Plan.
- C2. GWA shall have adequate and appropriate spill response materials on hand to respond to emergency release of oil, petroleum or any other material into waters of the territory.
- C3. Any unpermitted discharge into territorial waters or onto land with a potential for entry into territorial waters, is prohibited. If this occurs, GWA shall immediately take the following actions:
- Cease operations at the location of the violation or spill.
 - Assess the cause of the water quality problem and take appropriate measures to correct the problem and/or prevent further environmental damage.
 - Notify Guam EPA of the failure to comply. All petroleum spills shall be reported immediately to:
 1. Guam's Emergency 911 system
 2. Guam EPA's 24-Hour Spill Response Team at (671) 888-6488 or during working hours (671) 300-4751
 3. US Coast Guard Sector Guam (671) 355-4824
 4. National Response Center 1-800-424-8802
 - Submit a detailed written report to Guam EPA within five days of noncompliance that describes the nature of the event, corrective action taken and/or planned, steps to be taken to prevent a recurrence, results of any samples taken, and any other pertinent information.

- C4. Compliance with this condition does not relieve GWA from responsibility to maintain continuous compliance with the terms and conditions of this Order or the resulting liability from failure to comply.
- C5. Submittal or reporting of any of this information does not provide relief from any subsequent enforcement actions for unpermitted discharges to waters of the United States.

D. Timing Requirements

- D1. This Order is valid for five (5) Years from Date of Certification, unless otherwise approved by the Guam EPA Administrator.

E. Reporting and Notification Requirement Conditions

- E1. GWA shall provide notice to Guam EPA consistent with Condition A4:
- Immediately upon discovery of noncompliance with the provisions of this Order.
- E2. A Notice of Violation/Work Stop Order will be issued if certification conditions are not adhered to or when significant or sustained water quality degradation occurs. Work or discharge shall be suspended or halted until GWA addresses environmental problems/concerns to Guam EPA's satisfaction. Guam EPA may also levy penalties and fines (10 GCA §47111). Invalidity or enforceability of one or more provisions of this certification shall not affect any other provision of this certification.

RIGHT TO APPEAL

You have a right to appeal this Order to the Guam EPA Board of Directors, or request a hearing within 30 days of the date of receipt of this Order. Failure to appeal this Order constitutes a waiver of your right to a hearing. Any appeal will proceed pursuant to the provisions of 5 GCA Chapter 9, as provided by 22 GAR §5106(i)(7). Unless a written request for a hearing, signed by or on behalf of the U.S. EPA R-9 in the accompanying Order, is delivered or mailed to the agency within 30 days after this order is signed, Guam EPA may proceed upon the Notice of Intent to Appeal without a hearing. The request for hearing may be made by delivering or mailing the enclosed form entitled Notice of Intent to Appeal (Appendix B) as provided in §9205 to the address below.

To appeal you must do both of the following within 30 days of the date of receipt of this Order:

- File your appeal and a copy of this Order with the Guam EPA Board of Directors (see address below). Filing means actual receipt by the Guam EPA Board of Directors during regular business hours.
- Serve a copy of your appeal and this Order to the Administrator in paper form - by mail or in person at the address below. Email or facsimile is not accepted.

ADDRESS INFORMATION

GUAM EPA Board of Directors
3304 Mariner Avenue, Bldg. 17-3304, Barrigada, Guam 96913

GUAM EPA CONTACT INFORMATION

Please direct all questions about this Order to:

Jesse T. Cruz
EMAS Division Administrator
(671) 300-4795
jesse.cruz@epa.Guam.gov

SIGNATURE



WALTER S. LEON GUERRERO

 ADMINISTRATOR

10/04/2021

DATE

APPENDIX A

Statement of Understanding of Water Quality Certification Conditions

U.S. ENVIRONMENTAL PROTECTION AGENCY R-9 Water Quality Certification Order #2021-06

As the Project Proponent for the **Ugum SWTF NPDES Permit #GU00020371**, I have read and understand the conditions of the Guam EPA **WQC Order #2021-06**.

I have and will continue to ensure that GWA, the applicant for the Ugum SWTF NPDES Permit, has read and understands the conditions of this Order and any permits, plans, documents, and approvals referenced in the Order.

Print Name

Signature

Date

Title

Phone Number

APPENDIX B

NOTICE OF INTENT TO APPEAL

I, _____, have received WQC Order #2021-06 dated _____, listing the Water Quality Certification Conditions for U.S. EPA's Ugum SWTF NPDES Permit No. GU0020371.

I request a hearing with the Guam EPA Board of Directors. The basis for this hearing and appeal are the following:

[Additional Sheets maybe attached if more space is required.]

Mailing address:

Print Name

Signature

Date

Title

Phone Number

